UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Environmental Sciences Center
701 Mapes Road
Fort Meade, Maryland 20755-5350

DATE: July 19, 2016

SUBJECT: Region III Data QA Review

FROM: Brandon McDonald
Region III ESAT PO (3EA22)

TO: Greg Ham
On-Scene Coordinator

Attached is the Inorganic data validation report for the American Plating site for Case/DAS# R34931; SDG#460-115395-1 completed by the Region III Environmental Services Assistance Team (ESAT), ICF International, contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2607.

Attachment

cc: (b) (4) (WESTON)
(WESTON)

TO: #0002 TDF: #0616057

ICF International
ESAT Region 3
US Environmental Protection Agency Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Phone 410-305-3011

Date: July 6, 2016

To: (b) (4)
ESAT Region 3 Project Officer

From: (b) (4)
Inorganic Data Reviewer

(b) (4)
Oversight Chemist

Subject: Inorganic Data Validation (S4VM)
Site: American Plating
Case: R34931 SDG: 460-115395-1

OVERVIEW

Case R34931, Sample Delivery Group (SDG) 460-115395-1, consisted of two (2) aqueous sample analyzed for total arsenic (As), barium (Ba), cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), nickel (Ni), selenium (Se), silver (Ag) and zinc (Zn) by ICP-AES, mercury (Hg) by cold vapor technique, cyanide (CN^-) by spectrophotometry. In addition, two (2) aqueous samples were analyzed for Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material), N-Hexane Extractable Material (HEM/Oil & Grease) and for pH. Analyses were performed by Test America Edison (TAIE) in a manner consistent with EPA Methods 200.7, 245.1, 335.4, SW 946 1664A and SM-4500 H+, respectively.

SUMMARY

Data were validated with guidance from the inorganic National Functional Guidelines, and are assigned the Superfund Data Validation Label S4VM (Stage_4_Validation_Manual).

Samples were submitted to the laboratory directly by the contractor and not through the EPA Technical Services Branch (TSB). Environmental Services Assistance Team (ESAT) has been tasked to evaluate laboratory reported data for the purpose of usability.

NOTES

Contaminants found in the analysis of the associated blanks in this data set did not qualify field sample data.

Accuracy and precision criteria were met by the laboratory in the initial and continuing calibration verification standard analyses associated with the samples in this SDG.

Positive results detected below the Reporting Limit (RL) are estimated and have been qualified "J".

Relative Percent Differences (RPDs) and Percent Recoveries (%Rs) in Matrix Spike, Post-Digestion Matrix Spike, Laboratory Duplicate, Laboratory Control Sample (LCS) and Serial Dilution analyses for metals were within control limits.

RPDs and %Rs in Matrix Spike, Laboratory Duplicate, LCS and Serial Dilution analyses for Hg were within control limits.

RPDs and %Rs in Matrix Spike, Matrix Spike Duplicate, and both high and low range Laboratory Control Samples analyses for CN^- were within control limits.

RPDs and %Rs in Laboratory Duplicate and Standard Reference Materials (SRMs) analyses for pH were within control limits.

RPDs and %Rs in Matrix Spike, LCS and Laboratory Control Sample Duplicate (LCSD) analyses for SGT-HEM and HEM/Oil & Grease were within control limits.

GLOSSARY OF DATA QUALIFIER CODES (INORGANIC)

U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
B	The result is presumed a blank contaminant. This qualifier is used only in drinking water samples.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

DCN: ESATR3-2016-V566

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: AP-061016-WS-010 Lab Sample ID: 460-115395-5

Lab Name: TestAmerica Edison Job No.: 460-115395-1

SDG ID.:

Matrix: Water Date Sampled: 06/10/2016 14:40

Reporting Basis: WET Date Received: 06/15/2016 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.20	0.20	0.14	ug/L	U		1	245.1

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: AP-061016-WS-010 Lab Sample ID: 460-115395-5

Lab Name: TestAmerica Edison Job No.: 460-115395-1

SDG ID.:

Matrix: Water Date Sampled: 06/10/2016 14:40

Reporting Basis: WET Date Received: 06/15/2016 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	7.2	5.0	3.1	ug/L			1	200.7 Rev 4.4
7440-39-3	Barium	7.5	200	5.2	ug/L	J		1	200.7 Rev 4.4
7440-43-9	Cadmium	8.3	5.0	1.6	ug/L			1	200.7 Rev 4.4
7440-47-3	Chromium	155	10.0	4.6	ug/L			1	200.7 Rev 4.4
7440-50-8	Copper	67.7	25.0	5.6	ug/L			1	200.7 Rev 4.4
7440-02-0	Nickel	411	40.0	5.5	ug/L			1	200.7 Rev 4.4
7439-92-1	Lead	5.0	5.0	4.3	ug/L	U		1	200.7 Rev 4.4
7440-66-6	Zinc	168	30.0	5.2	ug/L			1	200.7 Rev 4.4
7782-49-2	Selenium	5.0	5.0	4.6	ug/L	U		1	200.7 Rev 4.4
7440-22-4	Silver	10.0	10.0	2.0	ug/L	U		1	200.7 Rev 4.4

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: AP-061016-WS-009 Lab Sample ID: 460-115395-4

Lab Name: TestAmerica Edison Job No.: 460-115395-1

SDG ID.:

Matrix: Water Date Sampled: 06/10/2016 14:35

Reporting Basis: WET Date Received: 06/15/2016 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.33	0.20	0.14	ug/L			1	245.1

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: AP-061016-WS-009 Lab Sample ID: 460-115395-4

Lab Name: TestAmerica Edison Job No.: 460-115395-1

SDG ID.:

Matrix: Water Date Sampled: 06/10/2016 14:35

Reporting Basis: WET Date Received: 06/15/2016 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	8.1	5.0	3.1	ug/L			1	200.7 Rev 4.4
7440-39-3	Barium	332	200	5.2	ug/L			1	200.7 Rev 4.4
7440-43-9	Cadmium	55.0	5.0	1.6	ug/L			1	200.7 Rev 4.4
7440-47-3	Chromium	785	10.0	4.6	ug/L			1	200.7 Rev 4.4
7440-50-8	Copper	1620	25.0	5.6	ug/L			1	200.7 Rev 4.4
7440-02-0	Nickel	2800	40.0	5.5	ug/L			1	200.7 Rev 4.4
7439-92-1	Lead	107	5.0	4.3	ug/L			1	200.7 Rev 4.4
7440-66-6	Zinc	2260	30.0	5.2	ug/L			1	200.7 Rev 4.4
7782-49-2	Selenium	5.0	5.0	4.6	ug/L	U		1	200.7 Rev 4.4
7440-22-4	Silver	36.3	10.0	2.0	ug/L			1	200.7 Rev 4.4

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: AP-061016-WS-009
Lab Sample ID: 460-115395-1
Lab Name: TestAmerica Edison
Job No.: 460-115395-1
SDG ID.:
Matrix: Water
Date Sampled: 06/10/2016 14:35
Reporting Basis: WET
Date Received: 06/15/2016 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Oil & Grease (HEM)	5.0	5.0	2.6	mg/L	U		1	1664A
	SGT-HEM (Oil and Grease - Nonpolar)	5.0	5.0	2.6	mg/L	U		1	1664A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: AP-061016-WS-009
Lab Sample ID: 460-115395-4
Lab Name: TestAmerica Edison
Job No.: 460-115395-1
SDG ID.:
Matrix: Water
Date Sampled: 06/10/2016 14:35
Reporting Basis: WET
Date Received: 06/15/2016 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	0.013	0.010	0.0040	mg/L			1	335.4
	pH	7.97			SU		HF	1	SM 4500 H+ B

D.V.
7/1/16

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: AP-061016-WS-010
Lab Sample ID: 460-115395-3
Lab Name: TestAmerica Edison
Job No.: 460-115395-1
SDG ID.:
Matrix: Water
Date Sampled: 06/10/2016 14:40
Reporting Basis: WET
Date Received: 06/15/2016 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Oil & Grease (HEM)	5.0	5.0	2.6	mg/L	U		1	1664A
	SGT-HEM (Oil and Grease - Nonpolar)	5.0	5.0	2.6	mg/L	U		1	1664A
	pH	8.00			SU		HF	1	SM 4500 H+ B

D.V.
7/1/16

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: AP-061016-WS-010
Lab Sample ID: 460-115395-5
Lab Name: TestAmerica Edison
Job No.: 460-115395-1
SDG ID.:
Matrix: Water
Date Sampled: 06/10/2016 14:40
Reporting Basis: WET
Date Received: 06/15/2016 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	0.010	0.010	0.0040	mg/L	U		1	335.4